



SEQUENCE LISTING

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<120> TNF Receptors, TNF Binding Proteins and DNAs Coding for  
Them

<130> 98-385-I

<140> 09/898,234

<141> 2001-07-03

<150> 09/525,998

<151> 2000-03-15

<150> 08/383,676

<151> 1995-02-01

<150> 08/153,287

<151> 1993-11-17

<150> 07/821,750

<151> 1992-01-02

<150> 07/511,430

<151> 1990-04-20

<160> 97

<170> PatentIn Ver. 2.0

<210> 1

<211> 1368

<212> DNA

<213> Homo sapiens

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<221> CDS

<222> (1)..(1365)

<220>

<221> sig\_peptide

<222> (1)..(87)

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<221> misc\_feature

<222> (88)..(120)

<223> portion of TNF-BP pro protein cleaved by  
extracellular proteases following secretion

<220>

<221> misc\_feature

<222> (606)..(633)

<223> portion of TNF-BP pro protein cleaved by

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extracellular proteases following secretion

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gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct	96
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro	
20 25 30	
cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa	144
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys	
35 40 45	
tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa	192
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys	
50 55 60	
gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac	240
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp	
65 70 75 80	
tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc	288
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu	
85 90 95	
aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg	336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val	
100 105 110	
gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg	384
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg	
115 120 125	
aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe	
130 135 140	
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu	
145 150 155 160	
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu	
165 170 175	
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr	
180 185 190	
aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser	
195 200 205	
ggc acc aca gtg ctg ttg ccc ctg gtc att ttc ttt ggt ctt tgc ctt	672
Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu	

210	215	220	
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Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys			
225	230	235	240
tcc aag ctc tac tcc att gtt tgt ggg aaa tcg aca cct gaa aaa gag			768
Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu			
	245	250	255
ggg gag ctt gaa gga act act act aag ccc ctg gcc cca aac cca agc			816
Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser			
	260	265	270
ttc agt ccc act cca ggc ttc acc ccc acc ctg ggc ttc agt ccc gtg			864
Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val			
	275	280	285
ccc agt tcc acc ttc acc tcc agc tcc acc tat acc ccc ggt gac tgt			912
Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys			
	290	295	300
ccc aac ttt gcg gct ccc cgc aga gag gtg gca cca ccc tat cag ggg			960
Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly			
305	310	315	320
gct gac ccc atc ctt gcg aca gcc ctc gcc tcc gac ccc atc ccc aac			1008
Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn			
	325	330	335
ccc ctt cag aag tgg gag gac agc gcc cac aag cca cag agc cta gac			1056
Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp			
	340	345	350
act gat gac ccc gcg acg ctg tac gcc gtg gtg gag aac gtg ccc ccg			1104
Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro			
	355	360	365
ttg cgc tgg aag gaa ttc gtg cgg cgc cta ggg ctg agc gac cac gag			1152
Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu			
	370	375	380
atc gat cgg ctg gag ctg cag aac ggg cgc tgc ctg cgc gag gcg caa			1200
Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln			
385	390	395	400
tac agc atg ctg gcg acc tgg agg cgg cgc acg ccg cgg cgc gag gcc			1248
Tyr Ser Met Leu Ala Thr Trp Arg Arg Thr Pro Arg Arg Glu Ala			
	405	410	415
acg ctg gag ctg ctg gga cgc gtg ctc cgc gac atg gac ctg ctg ggc			1296
Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly			
	420	425	430
tgc ctg gag gac atc gag gag gcg ctt tgc ggc ccc gcc gcc ctc ccg			1344
Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro			
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 Pro Ala Pro Ser Leu Leu Arg  
 450 455

1368

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 <211> 455  
 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
 35 40 45  
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
 50 55 60  
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
 65 70 75 80  
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
 85 90 95  
 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
 100 105 110  
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
 115 120 125  
 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
 130 135 140  
 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
 145 150 155 160  
 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
 165 170 175  
 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
 180 185 190  
 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
 195 200 205  
 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
 210 215 220  
 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys  
 225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu  
 245 250 255  
 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser  
 260 265 270  
 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val  
 275 280 285  
 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys  
 290 295 300  
 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly  
 305 310 315 320  
 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn  
 325 330 335  
 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp  
 340 345 350  
 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro  
 355 360 365  
 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu  
 370 375 380  
 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln  
 385 390 395 400  
 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala  
 405 410 415  
 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly  
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 Pro Ala Pro Ser Leu Leu Arg  
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<210> 3  
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 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)..(483)

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 1 5 10 15

att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt	96
Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys	
20 25 30	
cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc	144
Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser	
35 40 45	
ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa	192
Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys	
50 55 60	
tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac	240
Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp	
65 70 75 80	
cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg	288
Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp	
85 90 95	
agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg	336
Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly	
100 105 110	
acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc	384
Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys	
115 120 125	
cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac	432
His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn	
130 135 140	
tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag	480
Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu	
145 150 155 160	
aat	483
Asn	

<210> 4  
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 <212> PRT  
 <213> Homo sapiens

<400> 4  
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 Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys  
 20 25 30  
 Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser  
 35 40 45  
 Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys  
 50 55 60

Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp  
 65 70 75 80  
 Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp  
 85 90 95  
 Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly  
 100 105 110  
 Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys  
 115 120 125  
 His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn  
 130 135 140  
 Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu  
 145 150 155 160  
 Asn

<210> 5  
 <211> 486  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<220>  
 <221> CDS  
 <222> (1)..(486)

<400> 5  
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 1 5 10 15  
 tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 96  
 Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
 20 25 30  
 tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 144  
 Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
 35 40 45  
 tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 192  
 Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
 50 55 60  
 aaa tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg 240  
 Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
 65 70 75 80

gac cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat	288
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr	
85 90 95	
tgg agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat	336
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn	
100 105 110	
ggg acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc	384
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr	
115 120 125	
tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt	432
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser	
130 135 140	
aac tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att	480
Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile	
145 150 155 160	
gag aat	486
Glu Asn	

<210> 6  
 <211> 162  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<400> 6

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Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp	
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Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly	
35 40 45	
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser	
50 55 60	
Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val	
65 70 75 80	
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr	
85 90 95	
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn	
100 105 110	
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr	
115 120 125	

Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
 130 135 140

Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
 145 150 155 160

Glu Asn

<210> 7

<211> 633

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<220>

<221> CDS

<222> (1)..(633)

<400> 7

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 1 5 10 15

gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct 96  
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
 20 25 30

cac cta ggg gac agg gag aag aga gat agt gtg tgt ccc caa gga aaa 144  
 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
 35 40 45

tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa 192  
 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
 50 55 60

gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac 240  
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
 65 70 75 80

tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc 288  
 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
 85 90 95

aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg 336  
 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
 100 105 110

gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg 384  
 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
 115 120 125

aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe	
130 135 140	
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu	
145 150 155 160	
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu	
165 170 175	
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr	
180 185 190	
aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca	624
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser	
195 200 205	
ggc acc aca	633
Gly Thr Thr	
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<210> 8  
 <211> 211  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

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Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro	
20 25 30	
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys	
35 40 45	
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys	
50 55 60	
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp	
65 70 75 80	
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu	
85 90 95	
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val	
100 105 110	
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg	

115		120		125
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe				
130		135		140
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu				
145		150		155
				160
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu				
		165		170
				175
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr				
		180		185
				190
Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser				
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Gly Thr Thr				
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<210> 9

<211> 549

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

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<222> (1)..(549)

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ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt acc	96
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr	
20 25 30	
aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg	144
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly	
35 40 45	
cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct tca	192
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser	
50 55 60	
gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa	240
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu	
65 70 75 80	
atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc gtg	288
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val	

85										90					95					
tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	tgg	agt	gaa	aac	ctt	336				
Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu					
			100							105				110						
ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	ggg	acc	gtg	cac	ctc	384				
Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	Leu					
			115							120				125						
tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	tgc	cat	gca	ggg	ttc	432				
Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	Phe					
			130							135				140						
ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	aac	tgt	aag	aaa	agc	480				
Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	Ser					
			145							150				155						
ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	gag	aat	ggt	aag	ggc	528				
Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn	Val	Lys	Gly					
						165										175				
act	gag	gac	tca	ggc	acc	aca										549				
Thr	Glu	Asp	Ser	Gly	Thr	Thr														
						180														

<210> 10

<211> 183

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<400> 10

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Pro	Gln	Gly	Lys	Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr
			20							25				30	

Lys	Cys	His	Lys	Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly
			35							40				45	

Gln	Asp	Thr	Asp	Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser
			50							55				60	

Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu
			65							70				75	

Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val
						85							90		

Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu
						100							110		

Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu  
           115                                  120                                  125  
 Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe  
           130                                  135                                  140  
 Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser  
 145                                  150                                  155                                  160  
 Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly  
                                   165                                  170                                  175  
 Thr Glu Asp Ser Gly Thr Thr  
                                   180

<210> 11  
 <211> 600  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
           TNF-BP sequence

<220>  
 <221> CDS  
 <222> (1)..(600)

<400> 11  
 atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48  
 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
   1                                  5                                  10                                  15  
 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga gat agt gtg 96  
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
                                   20                                  25                                  30  
 tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt 144  
 Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
                                   35                                  40                                  45  
 acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg 192  
 Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
                                   50                                  55                                  60  
 ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct 240  
 Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
   65                                  70                                  75                                  80  
 tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag 288  
 Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
                                   85                                  90                                  95  
 gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc 336  
 Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr

100	105	110	
gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac			384
Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn			
115	120	125	
ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac			432
Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His			
130	135	140	
ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt			480
Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly			
145	150	155	160
ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa			528
Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys			
165	170	175	
agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat gtt aag			576
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys			
180	185	190	
ggc act gag gac tca ggc acc aca			600
Gly Thr Glu Asp Ser Gly Thr Thr			
195	200		

<210> 12

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant

TNF-BP sequence

<400> 12

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val
20 25 30

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys
35 40 45

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro
50 55 60

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala
65 70 75 80

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys
85 90 95

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr
100 105 110



aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg	336
Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val	
100 105 110	
gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg	384
Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg	
115 120 125	
aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc	432
Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe	
130 135 140	
aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag	480
Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu	
145 150 155 160	
aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa	528
Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu	
165 170 175	
aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg	576
Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr	
180 185 190	
aag ttg tgc cta ccc cag att gag aat	603
Lys Leu Cys Leu Pro Gln Ile Glu Asn	
195 200	

<210> 14

<211> 201

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<400> 14

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu	
1 5 10 15	
Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro	
20 25 30	
His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys	
35 40 45	
Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys	
50 55 60	
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp	
65 70 75 80	
Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu	
85 90 95	

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn  
195 200

<210> 15  
<211> 519  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>  
<221> CDS  
<222> (1)..(519)

<400> 15  
atg ctg gtc cct cac cta ggg gac agg gag aag aga gat agt gtg tgt 48  
Met Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys  
1 5 10 15

ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt acc 96  
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr  
20 25 30

aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg 144  
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly  
35 40 45

cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct tca 192  
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser  
50 55 60

gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa 240  
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu  
65 70 75 80

atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc gtg	288
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val	
85 90 95	
tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac ctt	336
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu	
100 105 110	
ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc	384
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu	
115 120 125	
tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc	432
Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe	
130 135 140	
ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc	480
Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser	
145 150 155 160	
ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat	519
Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn	
165 170	

<210> 16  
 <211> 173  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<400> 16	
Met Leu Val Pro His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys	
1 5 10 15	
Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr	
20 25 30	
Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly	
35 40 45	
Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser	
50 55 60	
Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu	
65 70 75 80	
Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val	
85 90 95	
Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu	
100 105 110	
Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu	

115	120	125
Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe		
130	135	140
Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser		
145	150	155
		160
Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn		
	165	170

<210> 17  
 <211> 570  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<220>  
 <221> CDS  
 <222> (1)..(570)

<400> 17  
 atg ggc ctc tcc acc gtg cct gac ctg ctg ctg cca ctg gtg ctc ctg 48  
 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
 1 5 10 15  
 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga gat agt gtg 96  
 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
 20 25 30  
 tgt ccc caa gga aaa tat atc cac cct caa aat aat tcg att tgc tgt 144  
 Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
 35 40 45  
 acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg 192  
 Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
 50 55 60  
 ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc ttc acc gct 240  
 Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
 65 70 75 80  
 tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa tgc cga aag 288  
 Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
 85 90 95  
 gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac cgg gac acc 336  
 Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr  
 100 105 110  
 gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg agt gaa aac 384  
 Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn  
 115 120 125

ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg acc gtg cac	432
Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His	
130 135 140	
ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc cat gca ggt	480
Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly	
145 150 155 160	
ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac tgt aag aaa	528
Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys	
165 170 175	
agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag aat	570
Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn	
180 185 190	

<210> 18  
 <211> 190  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<400> 18  
 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
 1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Asp Ser Val  
 20 25 30

Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys  
 35 40 45

Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro  
 50 55 60

Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala  
 65 70 75 80

Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys  
 85 90 95

Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr  
 100 105 110

Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn  
 115 120 125

Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His  
 130 135 140

Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly  
 145 150 155 160

Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
165 170 175

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
180 185 190

<210> 19

<211> 516

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: recombinant  
TNF-BP sequence

<220>

<221> CDS

<222> (1)..(516)

<400> 19

atg gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 48  
Met Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
1 5 10 15

tgc att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 96  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
20 25 30

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 144  
Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
35 40 45

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 192  
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
50 55 60

aaa tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg 240  
Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
65 70 75 80

gac cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat 288  
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
85 90 95

tgg agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat 336  
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
100 105 110

ggg acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc 384  
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr  
115 120 125

tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt 432  
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
130 135 140

aac tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att 480  
 Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
 145 150 155 160

gag aat gtt aag ggc act gag gac tca ggc acc aca 516  
 Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr  
 165 170

<210> 20  
 <211> 172  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: recombinant  
 TNF-BP sequence

<400> 20  
 Met Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
 1 5 10 15  
 Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
 20 25 30  
 Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
 35 40 45  
 Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
 50 55 60  
 Lys Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
 65 70 75 80  
 Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
 85 90 95  
 Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
 100 105 110  
 Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr  
 115 120 125  
 Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser  
 130 135 140  
 Asn Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile  
 145 150 155 160  
 Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr  
 165 170

<210> 21  
 <211> 1334  
 <212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA insert of  
lambdaTNF-BP15 and pTNF-BP15 vectors

<220>

<221> CDS

<222> (213)..(1325)

<400> 21

gaattctctg gactgaggct ccagttctgg cctttggggg tcaagatcac tgggaccagg 60

ccgtgatctc tatgcccagag tctcaaccct caactgtcac cccaaggcac ttgggacgtc 120

ctggacagac cgagtcccgg gaagccccag cactgccgct gccacactgc cctgagccca 180

aatggggcgag tgagaggcca tagctgtctg gc atg ggc ctc tcc acc gtg cct 233  
Met Gly Leu Ser Thr Val Pro  
1 5

gac ctg ctg ctg cca ctg gtg ttc ctg gag ctg ttg gtg gga ata tac 281  
Asp Leu Leu Leu Pro Leu Val Phe Leu Glu Leu Leu Val Gly Ile Tyr  
10 15 20

ccc tca ggg gtt att gga ctg gtc cct cac cta ggg gac agg gag aag 329  
Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg Glu Lys  
25 30 35

aga gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 377  
Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
40 45 50 55

tgc att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 425  
Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
60 65 70

tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 473  
Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
75 80 85

tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 521  
Ser Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser  
90 95 100

aaa tgc cga aag gaa atc ggt cag gtg gag atc tct tct tgc aca gtg 569  
Lys Cys Arg Lys Glu Ile Gly Gln Val Glu Ile Ser Ser Cys Thr Val  
105 110 115

gac cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat 617  
Asp Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr  
120 125 130 135

tgg agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat 665  
Trp Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn  
140 145 150

ggg acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc	713
Gly Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr	
155 160 165	
tgc cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt	761
Cys His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser	
170 175 180	
aac tgt aag aaa agc ctg gag tgc agg aag ttg tgc cta ccc cag att	809
Asn Cys Lys Lys Ser Leu Glu Cys Arg Lys Leu Cys Leu Pro Gln Ile	
185 190 195	
gag aat gtt aag ggc act gag gac tca ggc acc aca gtg ctg ttg ccc	857
Glu Asn Val Lys Gly Thr Glu Asp Ser Gly Thr Thr Val Leu Leu Pro	
200 205 210 215	
ctg gtc att ttc ttt ggt ctt tgc ctt tta tcc ctc ctc ttc att ggt	905
Leu Val Ile Phe Phe Gly Leu Cys Leu Leu Ser Leu Leu Phe Ile Gly	
220 225 230	
tta atg tat cgc tac caa cgg tgg aag tcc aag ctc tac tcc att gtt	953
Leu Met Tyr Arg Tyr Gln Arg Trp Lys Ser Lys Leu Tyr Ser Ile Val	
235 240 245	
tgt ggg aaa tcg aca cct gaa aaa gag ggg gag ctt gaa gga act act	1001
Cys Gly Lys Ser Thr Pro Glu Lys Glu Gly Glu Leu Glu Gly Thr Thr	
250 255 260	
act aag ccc ctg gcc cca aac cca agc ttc agt ccc act cca ggc ttc	1049
Thr Lys Pro Leu Ala Pro Asn Pro Ser Phe Ser Pro Thr Pro Gly Phe	
265 270 275	
acc ccc acc ctg ggc ttc agt ccc gtg ccc agt tcc acc ttc acc tcc	1097
Thr Pro Thr Leu Gly Phe Ser Pro Val Pro Ser Ser Thr Phe Thr Ser	
280 285 290 295	
agc tcc acc tat acc ccc ggt gac tgt ccc aac ttt gcg gct ccc cgc	1145
Ser Ser Thr Tyr Thr Pro Gly Asp Cys Pro Asn Phe Ala Ala Pro Arg	
300 305 310	
aga gag gtg gca cca ccc tat cag ggg gct gac ccc atc ctt gcg aca	1193
Arg Glu Val Ala Pro Pro Tyr Gln Gly Ala Asp Pro Ile Leu Ala Thr	
315 320 325	
gcc ctc gcc tcc gac ccc atc ccc aac ccc ctt cag aag tgg gag gac	1241
Ala Leu Ala Ser Asp Pro Ile Pro Asn Pro Leu Gln Lys Trp Glu Asp	
330 335 340	
agc gcc cac aag cca cag agc cta gac act gat gac ccc gcg acg ctg	1289
Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu	
345 350 355	
tac gcc gtg gtg gag aac gtg ccc ccg ttg cgc tgg aaggaattc	1334
Tyr Ala Val Val Glu Asn Val Pro Pro Leu Arg Trp	
360 365 370	

<210> 22  
 <211> 371  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: cDNA insert of  
 lambdaTNF-BP15 and pTNF-BP15 vectors

<400> 22

Met	Gly	Leu	Ser	Thr	Val	Pro	Asp	Leu	Leu	Leu	Pro	Leu	Val	Phe	Leu	1	5	10	15
Glu	Leu	Leu	Val	Gly	Ile	Tyr	Pro	Ser	Gly	Val	Ile	Gly	Leu	Val	Pro	20	25	30	
His	Leu	Gly	Asp	Arg	Glu	Lys	Arg	Asp	Ser	Val	Cys	Pro	Gln	Gly	Lys	35	40	45	
Tyr	Ile	His	Pro	Gln	Asn	Asn	Ser	Ile	Cys	Cys	Thr	Lys	Cys	His	Lys	50	55	60	
Gly	Thr	Tyr	Leu	Tyr	Asn	Asp	Cys	Pro	Gly	Pro	Gly	Gln	Asp	Thr	Asp	65	70	75	80
Cys	Arg	Glu	Cys	Glu	Ser	Gly	Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	85	90	95	
Arg	His	Cys	Leu	Ser	Cys	Ser	Lys	Cys	Arg	Lys	Glu	Ile	Gly	Gln	Val	100	105	110	
Glu	Ile	Ser	Ser	Cys	Thr	Val	Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	115	120	125	
Lys	Asn	Gln	Tyr	Arg	His	Tyr	Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	130	135	140	
Asn	Cys	Ser	Leu	Cys	Leu	Asn	Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	145	150	155	160
Lys	Gln	Asn	Thr	Val	Cys	Thr	Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	165	170	175	
Asn	Glu	Cys	Val	Ser	Cys	Ser	Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Arg	180	185	190	
Lys	Leu	Cys	Leu	Pro	Gln	Ile	Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser	195	200	205	
Gly	Thr	Thr	Val	Leu	Leu	Pro	Leu	Val	Ile	Phe	Phe	Gly	Leu	Cys	Leu	210	215	220	
Leu	Ser	Leu	Leu	Phe	Ile	Gly	Leu	Met	Tyr	Arg	Tyr	Gln	Arg	Trp	Lys	225	230	235	240
Ser	Lys	Leu	Tyr	Ser	Ile	Val	Cys	Gly	Lys	Ser	Thr	Pro	Glu	Lys	Glu	245	250	255	



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<210> 24

<211> 2173

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: raTNF-R8

<220>

<221> CDS

<222> (245) .. (1627)

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ttgccaattg ctgccctgtc cccagcccca atgggggagt gagagaggcc actgccggcc 240  
ggac atg ggt ctc ccc atc gtg cct ggc ctg ctg ctg tca ctg gtg ctc 289  
Met Gly Leu Pro Ile Val Pro Gly Leu Leu Leu Ser Leu Val Leu  
1 5 10 15  
ctg gct ctg ctg atg ggg ata cac cca tca ggg gtc acc gga ctg gtt 337  
Leu Ala Leu Leu Met Gly Ile His Pro Ser Gly Val Thr Gly Leu Val  
20 25 30  
cct tct ctt ggt gac cgg gag aag agg gat aat ttg tgt ccc cag gga 385  
Pro Ser Leu Gly Asp Arg Glu Lys Arg Asp Asn Leu Cys Pro Gln Gly  
35 40 45  
aag tat gcc cat cca aag aat aat tcc atc tgc tgc acc aag tgc cac 433  
Lys Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His  
50 55 60  
aaa gga acc tac ttg gtg agt gac tgt cca agc cca ggg cag gaa aca 481  
Lys Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr  
65 70 75  
gtc tgc gag ctc tct cat aaa ggc acc ttt aca gct tcg cag aac cac 529  
Val Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His  
80 85 90 95  
gtc aga cag tgt ctc agt tgc aag aca tgt cgg aaa gaa atg ttc cag 577  
Val Arg Gln Cys Leu Ser Cys Lys Thr Cys Arg Lys Glu Met Phe Gln  
100 105 110  
gtg gag att tct cct tgc aaa gct gac atg gac acc gtg tgt ggc tgc 625  
Val Glu Ile Ser Pro Cys Lys Ala Asp Met Asp Thr Val Cys Gly Cys  
115 120 125  
aag aag aac caa ttc cag cgc tac ctg agt gag acg cat ttc cag tgt 673  
Lys Lys Asn Gln Phe Gln Arg Tyr Leu Ser Glu Thr His Phe Gln Cys  
130 135 140  
gtg gac tgc agc ccc tgc ttc aat ggc acc gtg aca atc ccc tgt aag 721  
Val Asp Cys Ser Pro Cys Phe Asn Gly Thr Val Thr Ile Pro Cys Lys  
145 150 155  
gag aaa cag aac acc gtg tgt aac tgc cac gca gga ttc ttt cta agc 769  
Glu Lys Gln Asn Thr Val Cys Asn Cys His Ala Gly Phe Phe Leu Ser  
160 165 170 175  
gga aat gag tgc acc cct tgc agc cac tgc aag aaa aat cag gaa tgt 817  
Gly Asn Glu Cys Thr Pro Cys Ser His Cys Lys Lys Asn Gln Glu Cys  
180 185 190  
atg aag ctg tgc cta cct cca gtt gca aat gtc aca aac ccc cag gac 865  
Met Lys Leu Cys Leu Pro Pro Val Ala Asn Val Thr Asn Pro Gln Asp  
195 200 205

tca ggt act gcc gtg ctg ttg cct ctg gtt atc ttc cta ggt ctt tgc	913
Ser Gly Thr Ala Val Leu Leu Pro Leu Val Ile Phe Leu Gly Leu Cys	
210 215 220	
ctt tta ttc ttt atc tgc atc agt cta ctg tgc cga tat ccc cag tgg	961
Leu Leu Phe Phe Ile Cys Ile Ser Leu Leu Cys Arg Tyr Pro Gln Trp	
225 230 235	
agg ccc agg gtc tac tcc atc att tgt agg gat tca gct cct gtc aaa	1009
Arg Pro Arg Val Tyr Ser Ile Ile Cys Arg Asp Ser Ala Pro Val Lys	
240 245 250 255	
gag gtg gag ggt gaa gga att gtt act aag ccc cta act cca gcc tct	1057
Glu Val Glu Gly Glu Gly Ile Val Thr Lys Pro Leu Thr Pro Ala Ser	
260 265 270	
atc cca gcc ttc agc ccc aac ccc ggc ttc aac ccc act ctg ggc ttc	1105
Ile Pro Ala Phe Ser Pro Asn Pro Gly Phe Asn Pro Thr Leu Gly Phe	
275 280 285	
agc acc acc cca cgc ttc agt cat cct gtc tcc agt acc ccc atc agc	1153
Ser Thr Thr Pro Arg Phe Ser His Pro Val Ser Ser Thr Pro Ile Ser	
290 295 300	
ccc gtc ttc ggt cct agt aac tgg cac aac ttc gtg cca cct gta aga	1201
Pro Val Phe Gly Pro Ser Asn Trp His Asn Phe Val Pro Pro Val Arg	
305 310 315	
gag gtg gtc cca acc cag ggt gct gac cct ctc ctc tac gga tcc ctc	1249
Glu Val Val Pro Thr Gln Gly Ala Asp Pro Leu Leu Tyr Gly Ser Leu	
320 325 330 335	
aac cct gtg cca atc ccc gcc cct gtt cgg aaa tgg gaa gac gtc gtc	1297
Asn Pro Val Pro Ile Pro Ala Pro Val Arg Lys Trp Glu Asp Val Val	
340 345 350	
gcg gcc cag cca caa cgg ctt gac act gca gac cct gcg atg ctg tat	1345
Ala Ala Gln Pro Gln Arg Leu Asp Thr Ala Asp Pro Ala Met Leu Tyr	
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gct gtg gtg gat ggc gtg cct ccg aca cgc tgg aag gag ttc atg cgg	1393
Ala Val Val Asp Gly Val Pro Pro Thr Arg Trp Lys Glu Phe Met Arg	
370 375 380	
ctc ctg ggg ctg agc gag cac gag atc gag cgg ttg gag ctg cag aac	1441
Leu Leu Gly Leu Ser Glu His Glu Ile Glu Arg Leu Glu Leu Gln Asn	
385 390 395	
ggg cgt tgc ctc cgc gag gct cat tac agc atg ctg gaa gcc tgg cgg	1489
Gly Arg Cys Leu Arg Glu Ala His Tyr Ser Met Leu Glu Ala Trp Arg	
400 405 410 415	
cgc cgc aca ccg cga cac gag gcc acg ctg gac gta gtg ggc cgc gtg	1537
Arg Arg Thr Pro Arg His Glu Ala Thr Leu Asp Val Val Gly Arg Val	
420 425 430	

ctt tgc gac atg aac ctg cgt ggc tgc ctg gag aac atc cgc gag act 1585  
 Leu Cys Asp Met Asn Leu Arg Gly Cys Leu Glu Asn Ile Arg Glu Thr  
 435 440 445

cta gaa agc cct gcc cac tcg tcc acg acc cac ctc ccg cga 1627  
 Leu Glu Ser Pro Ala His Ser Ser Thr Thr His Leu Pro Arg  
 450 455 460

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<211> 461

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: raTNF-R8

<400> 25

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Ser Leu Gly Asp Arg Glu Lys Arg Asp Asn Leu Cys Pro Gln Gly Lys  
 35 40 45

Tyr Ala His Pro Lys Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
 50 55 60

Gly Thr Tyr Leu Val Ser Asp Cys Pro Ser Pro Gly Gln Glu Thr Val  
 65 70 75 80

Cys Glu Leu Ser His Lys Gly Thr Phe Thr Ala Ser Gln Asn His Val  
 85 90 95

Arg Gln Cys Leu Ser Cys Lys Thr Cys Arg Lys Glu Met Phe Gln Val

100						105						110					
Glu	Ile	Ser	Pro	Cys	Lys	Ala	Asp	Met	Asp	Thr	Val	Cys	Gly	Cys	Lys		
115						120						125					
Lys	Asn	Gln	Phe	Gln	Arg	Tyr	Leu	Ser	Glu	Thr	His	Phe	Gln	Cys	Val		
130						135						140					
Asp	Cys	Ser	Pro	Cys	Phe	Asn	Gly	Thr	Val	Thr	Ile	Pro	Cys	Lys	Glu		
145						150						155					
Lys	Gln	Asn	Thr	Val	Cys	Asn	Cys	His	Ala	Gly	Phe	Phe	Leu	Ser	Gly		
165						170						175					
Asn	Glu	Cys	Thr	Pro	Cys	Ser	His	Cys	Lys	Lys	Asn	Gln	Glu	Cys	Met		
180						185						190					
Lys	Leu	Cys	Leu	Pro	Pro	Val	Ala	Asn	Val	Thr	Asn	Pro	Gln	Asp	Ser		
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Gly	Thr	Ala	Val	Leu	Leu	Pro	Leu	Val	Ile	Phe	Leu	Gly	Leu	Cys	Leu		
210						215						220					
Leu	Phe	Phe	Ile	Cys	Ile	Ser	Leu	Leu	Cys	Arg	Tyr	Pro	Gln	Trp	Arg		
225						230						235					
Pro	Arg	Val	Tyr	Ser	Ile	Ile	Cys	Arg	Asp	Ser	Ala	Pro	Val	Lys	Glu		
245						250						255					
Val	Glu	Gly	Glu	Gly	Ile	Val	Thr	Lys	Pro	Leu	Thr	Pro	Ala	Ser	Ile		
260						265						270					
Pro	Ala	Phe	Ser	Pro	Asn	Pro	Gly	Phe	Asn	Pro	Thr	Leu	Gly	Phe	Ser		
275						280						285					
Thr	Thr	Pro	Arg	Phe	Ser	His	Pro	Val	Ser	Ser	Thr	Pro	Ile	Ser	Pro		
290						295						300					
Val	Phe	Gly	Pro	Ser	Asn	Trp	His	Asn	Phe	Val	Pro	Pro	Val	Arg	Glu		
305						310						315					
Val	Val	Pro	Thr	Gln	Gly	Ala	Asp	Pro	Leu	Leu	Tyr	Gly	Ser	Leu	Asn		
325						330						335					
Pro	Val	Pro	Ile	Pro	Ala	Pro	Val	Arg	Lys	Trp	Glu	Asp	Val	Val	Ala		
340						345						350					
Ala	Gln	Pro	Gln	Arg	Leu	Asp	Thr	Ala	Asp	Pro	Ala	Met	Leu	Tyr	Ala		
355						360						365					
Val	Val	Asp	Gly	Val	Pro	Pro	Thr	Arg	Trp	Lys	Glu	Phe	Met	Arg	Leu		
370						375						380					
Leu	Gly	Leu	Ser	Glu	His	Glu	Ile	Glu	Arg	Leu	Glu	Leu	Gln	Asn	Gly		
385						390						395					
Arg	Cys	Leu	Arg	Glu	Ala	His	Tyr	Ser	Met	Leu	Glu	Ala	Trp	Arg	Arg		

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Arg	Thr	Pro	Arg	His	Glu	Ala	Thr	Leu	Asp	Val	Val	Gly	Arg	Val	Leu				
			420					425					430						
Cys	Asp	Met	Asn	Leu	Arg	Gly	Cys	Leu	Glu	Asn	Ile	Arg	Glu	Thr	Leu				
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: human TNF-R in  
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<220>  
 <221> CDS  
 <222> (213)..(1577)

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 ctggacagac cgagtcccgg gaagccccag cactgccgct gccacactgc cctgagccca 180  
 katgggggag tgagaggcca tagctgtctg gc atg ggc ctc tcc acc gtg cct 233  
 Met Gly Leu Ser Thr Val Pro  
 1 5  
 gac ctg ctg ctg cca ctg gtg ctc ctg gag ctg ttg gtg gga ata tac 281  
 Asp Leu Leu Leu Pro Leu Val Leu Leu Glu Leu Leu Val Gly Ile Tyr  
 10 15 20  
 ccc tca ggg gtt att gga ctg gtc cct cac cta ggg gac agg gag aag 329  
 Pro Ser Gly Val Ile Gly Leu Val Pro His Leu Gly Asp Arg Glu Lys  
 25 30 35  
 aga gat agt gtg tgt ccc caa gga aaa tat atc cac cct caa aat aat 377  
 Arg Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln Asn Asn  
 40 45 50 55  
 tcg att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac 425  
 Ser Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp  
 60 65 70  
 tgt cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc 473  
 Cys Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly  
 75 80 85  
 tcc ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc 521

Ser	Phe	Thr	Ala	Ser	Glu	Asn	His	Leu	Arg	His	Cys	Leu	Ser	Cys	Ser		
		90					95					100					
aaa	tgc	cga	aag	gaa	atg	ggc	cag	gtg	gag	atc	tct	tct	tgc	aca	gtg	569	
Lys	Cys	Arg	Lys	Glu	Met	Gly	Gln	Val	Glu	Ile	Ser	Ser	Cys	Thr	Val		
	105					110				115							
gac	cgg	gac	acc	gtg	tgt	ggc	tgc	agg	aag	aac	cag	tac	cgg	cat	tat	617	
Asp	Arg	Asp	Thr	Val	Cys	Gly	Cys	Arg	Lys	Asn	Gln	Tyr	Arg	His	Tyr		
120					125				130						135		
tgg	agt	gaa	aac	ctt	ttc	cag	tgc	ttc	aat	tgc	agc	ctc	tgc	ctc	aat	665	
Trp	Ser	Glu	Asn	Leu	Phe	Gln	Cys	Phe	Asn	Cys	Ser	Leu	Cys	Leu	Asn		
			140					145						150			
ggg	acc	gtg	cac	ctc	tcc	tgc	cag	gag	aaa	cag	aac	acc	gtg	tgc	acc	713	
Gly	Thr	Val	His	Leu	Ser	Cys	Gln	Glu	Lys	Gln	Asn	Thr	Val	Cys	Thr		
			155				160						165				
tgc	cat	gca	ggc	ttc	ttt	cta	aga	gaa	aac	gag	tgt	gtc	tcc	tgt	agt	761	
Cys	His	Ala	Gly	Phe	Phe	Leu	Arg	Glu	Asn	Glu	Cys	Val	Ser	Cys	Ser		
		170				175						180					
aac	tgt	aag	aaa	agc	ctg	gag	tgc	acg	aag	ttg	tgc	cta	ccc	cag	att	809	
Asn	Cys	Lys	Lys	Ser	Leu	Glu	Cys	Thr	Lys	Leu	Cys	Leu	Pro	Gln	Ile		
	185					190				195							
gag	aat	gtt	aag	ggc	act	gag	gac	tca	ggc	acc	aca	gtg	ctg	ttg	ccc	857	
Glu	Asn	Val	Lys	Gly	Thr	Glu	Asp	Ser	Gly	Thr	Thr	Val	Leu	Leu	Pro		
200					205				210					215			
ctg	gtc	att	ttc	ttt	ggc	ctt	tgc	ctt	tta	tcc	ctc	ctc	ttc	att	ggc	905	
Leu	Val	Ile	Phe	Phe	Gly	Leu	Cys	Leu	Leu	Ser	Leu	Leu	Phe	Ile	Gly		
				220				225						230			
tta	atg	tat	cgc	tac	caa	cgg	tgg	aag	tcc	aag	ctc	tac	tcc	att	gtt	953	
Leu	Met	Tyr	Arg	Tyr	Gln	Arg	Trp	Lys	Ser	Lys	Leu	Tyr	Ser	Ile	Val		
			235					240					245				
tgt	ggg	aaa	tcg	aca	cct	gaa	aaa	gag	ggg	gag	ctt	gaa	gga	act	act	1001	
Cys	Gly	Lys	Ser	Thr	Pro	Glu	Lys	Glu	Gly	Glu	Leu	Glu	Gly	Thr	Thr		
		250				255					260						
act	aag	ccc	ctg	gcc	cca	aac	cca	agc	ttc	agt	ccc	act	cca	ggc	ttc	1049	
Thr	Lys	Pro	Leu	Ala	Pro	Asn	Pro	Ser	Phe	Ser	Pro	Thr	Pro	Gly	Phe		
	265					270					275						
acc	ccc	acc	ctg	ggc	ttc	agt	ccc	gtg	ccc	agt	tcc	acc	ttc	acc	tcc	1097	
Thr	Pro	Thr	Leu	Gly	Phe	Ser	Pro	Val	Pro	Ser	Ser	Thr	Phe	Thr	Ser		
280					285				290						295		
agc	tcc	acc	tat	acc	ccc	ggc	gac	tgt	ccc	aac	ttt	gcg	gct	ccc	cgc	1145	
Ser	Ser	Thr	Tyr	Thr	Pro	Gly	Asp	Cys	Pro	Asn	Phe	Ala	Ala	Pro	Arg		
				300				305					310				
aga	gag	gtg	gca	cca	ccc	tat	cag	ggg	gct	gac	ccc	atc	ctt	gcg	aca	1193	
Arg	Glu	Val	Ala	Pro	Pro	Tyr	Gln	Gly	Ala	Asp	Pro	Ile	Leu	Ala	Thr		

315	320	325	
gcc ctc gcc tcc gac ccc atc ccc aac ccc ctt cag aag tgg gag gac			1241
Ala Leu Ala Ser Asp Pro Ile Pro Asn Pro Leu Gln Lys Trp Glu Asp			
330	335	340	
agc gcc cac aag cca cag agc cta gac act gat gac ccc gcg acg ctg			1289
Ser Ala His Lys Pro Gln Ser Leu Asp Thr Asp Asp Pro Ala Thr Leu			
345	350	355	
tac gcc gtg gtg gag aac gtg ccc ccg ttg cgc tgg aag gaa ttc gtg			1337
Tyr Ala Val Val Glu Asn Val Pro Pro Leu Arg Trp Lys Glu Phe Val			
360	365	370	375
cgg cgc cta ggg ctg agc gac cac gag atc gat cgg ctg gag ctg cag			1385
Arg Arg Leu Gly Leu Ser Asp His Glu Ile Asp Arg Leu Glu Leu Gln			
380	385	390	
aac ggg cgc tgc ctg cgc gag gcg caa tac agc atg ctg gcg acc tgg			1433
Asn Gly Arg Cys Leu Arg Glu Ala Gln Tyr Ser Met Leu Ala Thr Trp			
395	400	405	
agg cgg cgc acg ccg cgg cgc gag gcc acg ctg gag ctg ctg gga cgc			1481
Arg Arg Arg Thr Pro Arg Arg Glu Ala Thr Leu Glu Leu Leu Gly Arg			
410	415	420	
gtg ctc cgc gac atg gac ctg ctg ggc tgc ctg gag gac atc gag gag			1529
Val Leu Arg Asp Met Asp Leu Leu Gly Cys Leu Glu Asp Ile Glu Glu			
425	430	435	
gcg ctt tgc ggc ccc gcc gcc ctc ccg ccc gcg ccc agt ctt ctc aga			1577
Ala Leu Cys Gly Pro Ala Ala Leu Pro Pro Ala Pro Ser Leu Leu Arg			
440	445	450	455
tgaggctgcg cccctgcggg cagctctaag gaccgtcctg cgagatcgcc ttccaacccc			1637
acttttttct ggaaaggagg ggtcctgcag gggcaagcag gagctagcag ccgcctactt			1697
ggtgctaacc cctcgatgta catagctttt ctcagctgcc tgcgcgccgc cgacagtcag			1757
cgctgtgcgc gcggagagag gtgcgccgtg ggctcaagag cctgagtggg tggtttgcca			1817
ggatgagggg cgctatgcct catgcccgtt ttgggtgtcc tcaccagcaa ggctgctcgg			1877
gggcccctgg ttcgtccctg agcctttttc acagtgcata agcagttttt tttgtttttg			1937
ttttgttttg tttgtttttt aaatcaatca tgttacacta atagaaactt ggcaactcctg			1997
tgccctctgc ctggacaagc acatagcaag ctgaactgtc ctaaggcagg ggcgagcacg			2057
gaacaatggg gccttcagct ggagctgtgg acttttgtac atacactaaa attctgaagt			2117
taaaaaaaaa aaaaaaagga attc			2141

<210> 27  
<211> 455

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: human TNF-R in  
1TNF-R2

<400> 27

Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu  
1 5 10 15

Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro  
20 25 30

His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys  
35 40 45

Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
50 55 60

Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp  
65 70 75 80

Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu  
85 90 95

Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val  
100 105 110

Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg  
115 120 125

Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe  
130 135 140

Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu  
145 150 155 160

Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu  
165 170 175

Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr  
180 185 190

Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser  
195 200 205

Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu  
210 215 220

Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys  
225 230 235 240

Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu  
245 250 255

Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser



<210> 29  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: N-terminal  
amino acid sequence of protein purified from urine  
(subsidiary sequence)

<220>  
<221> UNSURE  
<222> (7)  
<223> identity of "Xaa" could not be determined

<400> 29  
Leu Val Pro His Leu Gly Xaa Arg Glu  
1 5

<210> 30  
<211> 151  
<212> DNA  
<213> Homo sapiens

<400> 30  
caggggaaaa tattcacct caaataattc gatttgctgt accaagtgcc acaaaggaaa 60  
ctacttgtag aatgactgtc caggcccggg gcaggatagc gactgcaggg agtgtgagag 120  
cggctccttc acagcctcag aaaacaacaa g 151

<210> 31  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 31  
Asp Ser Val Cys Pro Gln Gly Lys  
1 5

<210> 32  
<211> 7  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
 <221> UNSURE  
 <222> (1)..(2)  
 <223> identity of "Xaa" could not be determined  
  
 <400> 32  
 Xaa Xaa Leu Ser Cys Ser Lys  
   1                  5  
  
 <210> 33  
 <211> 7  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
       cleavage peptide  
  
 <400> 33  
 Asp Thr Val Cys Gly Cys Arg  
   1                  5  
  
 <210> 34  
 <211> 11  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
       cleavage peptide  
  
 <400> 34  
 Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys  
   1                  5                  10  
  
 <210> 35  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
       cleavage peptide  
  
 <400> 35  
 Glu Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys  
   1                  5                  10  
  
 <210> 36  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (6)  
<223> identity of "Xaa" could not be determined

<220>  
<221> UNSURE  
<222> (10)..(12)  
<223> identity of "Xaa" could not be determined

<400> 36  
Tyr Ile His Pro Gln Xaa Asn Ser Ile Xaa Xaa Xaa Lys  
1 5 10

<210> 37  
<211> 14  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 37  
Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys  
1 5 10

<210> 38  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 38  
Leu Val Pro His Leu Gly Asp Arg  
1 5

<210> 39  
<211> 15  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 39  
 Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg  
     1                    5                    10                    15

<210> 40  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
         cleavage peptide

<400> 40  
 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln  
     1                    5                    10

<210> 41  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
         cleavage peptide

<220>  
 <221> UNSURE  
 <222> (9)..(11)  
 <223> identity of "Xaa" could not be determined

<400> 41  
 Glu Met Gly Gln Val Glu Ile Ser Xaa Xaa Xaa Val Asp  
     1                    5                    10

<210> 42  
 <211> 20  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic  
         cleavage peptide

<400> 42  
 Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp Arg Asp  
     1                    5                    10                    15

Thr Val Cys Gly  
             20

<210> 43  
 <211> 19

<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (6)  
<223> indentity of "Xaa" could not be determined

<220>  
<221> UNSURE  
<222> (18)  
<223> identity of "Xaa" could not be determined

<400> 43  
Tyr Ile His Pro Gln Xaa Asn Ser Ile Cys Cys Thr Lys Cys His Lys  
1 5 10 15

Gly Xaa Tyr

<210> 44  
<211> 18  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>  
<221> UNSURE  
<222> (16)..(17)  
<223> identity of "Xaa" could not be determined

<400> 44  
Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Xaa  
1 5 10 15

Xaa Arg

<210> 45  
<211> 8  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 45

Leu Cys Leu Pro Gln Ile Glu Asn  
1 5

<210> 46

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<220>

<221> UNSURE

<222> (7)

<223> identity of "Xaa" could not be determined

<400> 46

Gln Asn Thr Val Cys Thr Xaa His Ala Gly Phe Phe Leu Arg  
1 5 10

<210> 47

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 47

Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu Asn  
1 5 10

<210> 48

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 48

Asp Ser Val Cys Pro Gln Gly Lys Tyr Ile His Pro Gln  
1 5 10

<210> 49

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic cleavage peptide

<400> 49

Gln Gly Lys Tyr Ile His Pro  
1 5

<210> 50

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization probe

<400> 50

caaggtaa atattcatcc

20

<210> 51

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization probe

<400> 51

cagggt aagt acatccatcc

20

<210> 52

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization probe

<400> 52

caaggtaa atatacatcc

20

<210> 53

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization probe

<400> 53

caaggcaaat atattcatcc

20

<210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization  
probe

<400> 54

cagggcaagt acatccaccc

20

<210> 55

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization  
probe

<400> 55

caaggcaaat atatacatcc

20

<210> 56

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization  
probe

<400> 56

caaggaaaat atattcatcc

20

<210> 57

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization  
probe

<400> 57

cagggaaagt acatccaccc

20

<210> 58

<211> 20

<212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
           probe  
  
 <400> 58  
 caaggaaaat atatacatcc 20  
  
  
 <210> 59  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
           probe  
  
 <400> 59  
 caagggaaat atattcatcc 20  
  
  
 <210> 60  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
           probe  
  
 <400> 60  
 caggggaagt acatccaccc 20  
  
  
 <210> 61  
 <211> 20  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
           probe  
  
 <400> 61  
 caagggaaat atatacatcc 20  
  
  
 <210> 62  
 <211> 14  
 <212> PRT  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: TNF-BP tryptic

cleavage peptide

<400> 62

Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Glu Asn Asn Lys  
1 5 10

<210> 63

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 63

Glu Cys Gly Ser Gly Ser Phe Thr Ala Ser Cys Asn Asn Lys  
1 5 10

<210> 64

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 64

Phe Thr Ala Ser Glu Asn Asn Lys  
1 5

<210> 65

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: TNF-BP tryptic  
cleavage peptide

<400> 65

Phe Thr Ala Ser Cys Asn Asn Lys  
1 5

<210> 66

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: hybridization  
probe

<400> 66	
aaatgacgga gactcttggt gttcctaggg	30
<210> 67	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization probe	
<400> 67	
aagtggcgta gtcttttggt gttcctaggg	30
<210> 68	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization probe	
<400> 68	
aaatgtcgga gactcttggt gttcctaggg	30
<210> 69	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization probe	
<400> 69	
aaatgacggt cactcttggt gttcctaggg	30
<210> 70	
<211> 30	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: hybridization probe	
<400> 70	
aagtggcggt ctcttttggt gttcctaggg	30

<210> 71  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
       probe  
  
 <400> 71  
 aaatgtcggg cactcttggt gttcctaggg 30  
  
 <210> 72  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
       probe  
  
 <400> 72  
 aaatgacgga gaacattggt gttcctaggg 30  
  
 <210> 73  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
       probe  
  
 <400> 73  
 aagtggcgta gtactttggt gttcctaggg 30  
  
 <210> 74  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> Description of Artificial Sequence: hybridization  
       probe  
  
 <400> 74  
 aaatgtcggg gaacattggt gttcctaggg 30  
  
 <210> 75  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization probe

<400> 75  
 aaatgacggt caacattggt gttcctaggg 30

<210> 76  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization probe

<400> 76  
 aagtggcggt ctactttggt gttcctaggg 30

<210> 77  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: hybridization probe

<400> 77  
 aaatgtcggt caacattggt gttcctaggg 30

<210> 78  
 <211> 158  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1)..(153)

<400> 78  
 cag ggg aaa tat att cac cct caa aat aat tcg att tcg tgt acc aag 48  
 Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys  
 1 5 10 15

tcg cac aaa gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag 96  
 Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln  
 20 25 30

gat acg gac tgc agg gag tgt gag agc ggc tcc ttc aca gcc tca gaa 144  
 Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu  
 35 40 45

aac aac aag gatcc 158

Asn Asn Lys  
50

<210> 79  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 79  
Gln Gly Lys Tyr Ile His Pro Gln Asn Asn Ser Ile Ser Cys Thr Lys  
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Ser His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln  
20 25 30  
Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu  
35 40 45

Asn Asn Lys  
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B4  
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